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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,640

06/30/2003

Arno Mechler

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04/06/2005

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EXAMINER

WILLIAMS, DON J

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,640

Applicant(s)

MECHLER, ARNO

Examiner

Don Williams

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/1/2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Applicant's application filed on July 1, 2002.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5,7,11-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 5, it is unclear whether "an interface" is actually an additional interface or actually one of two interfaces claimed in claim 1. Please clarify.

With respect to claim 7, line 2, it appears that, "the detector unit" should actually be each detector unit. If so, please make appropriate correction or please clarify.

Regarding claim 11, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

With respect to 12-17, preamble statements of dependent claims should be the same as or consistent with the claim from which they depend. For

examining purposes the claim will be treated as a detector unit that is used in a system.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-9, 11-13 are rejected under 35 U.S.C. 102(b). as being anticipated by Bregman et al (5,093,890)

As to claim 1, Bregman et al disclose a detector unit comprised of Card #1, Middle Card, and Last Card. Bregman et al teach that the detector unit is designed for an optical bus connection, (see fig.1, column 4, lines 5-10). The light source and light receiver incorporated in the cards are comprised of the transceiver elements that are optically connected to each other. Bregman et also teach that the optical interfaces (56,56), optical anomalies (30), (32), and (34) are arranged along the optical connection path (26) which couple light of the light transmitter incorporated into the card and couple light out of the optical connection path (26) into the light receiver incorporated into the card, (see fig. 1, column 4, lines 36-60).

As to claim 2, Bregman et al disclose at least one optical connection path (26) as a reflecting passage, (see fig.1, column 4, line11).

As to claim 3, Bregman et al teach that the optical connection path (36) extends in a straight line within the detector unit, (see fig.1, column 4, lines 36-38).

As to claim 4, Bregman et al teach that optical interfaces (56-56) are arranged at opposite ends of each other, (see fig. 1, column 5, lines 53-55).

As to claim 5, Bregman et al teach an optical interface (56,56) has a terminal window transparent to the wavelength used, (see fig.1, column 5, lines 53-56).

As to claim 6, Bregman et al teach that the optical anomaly (30), (32), and (34) have totally reflecting recess of the optical connection path or one or more partly transmitting reflection elements, (see fig.1, column 4, lines 20-21).

As to claim 8, Bregman et al teach optical interfaces (56,56), optical anomalies (30, 32, and 34), are arranged along the optical connection path (26) which couple light of the light transmitter incorporated into the card and couple light out of the optical connection path (26) into the light receiver incorporated into the card, (see fig. 1, column 4, lines 36-60).

As to claim 9, Bregman et al teach that the light transmitter and the light receiver are incorporated in the cards that form the transceiver elements, (see fig. 1, column 4, lines 40-55).

As to claim 11, Bregman et al teach an optoelectronic sensor device, (see column 2, lines 56-59).

As to claim 12, Bregman et al teach a system having a plurality of detector units, (see Abstract, lines 14-16 and column 6, claim 11)..

As to claim 13, Bregman et al teach optical interfaces (56,56) are arranged adjacently and provided in a congruent arrangement, (see figure 1, column 5, lines 53-55).

Claims 1-14, & 17 are rejected under 35 U.S.C. 102(b). as being anticipated by Gipson et al (4,732,446).

As to claim 1, Gipson et al disclose that two optical interfaces (30,30) are connected, and at least one optical anomaly (32) is arranged along the optical connection path which couple light of the transmitter (46) into the optical connection path (48) and to couple light out of the optical connection path (48) to the light receiver (44), (see fig.6, column 7, lines 10-15).

As to claim 2, Gipson et al disclose at least one optical connection path (12) formed by a light conductor or by a reflecting passage, (see fig.1, column 6, line 49-51).

As to claim 3, Gipson et al teach that the optical connection path (48) extends in a straight line within the detector unit, (see fig.1, column 5, lines 53-54).

As to claim 4, Gipson et al teach that optical interfaces (30,30) are arranged at opposite ends of each other, (see fig. 4, column 6, lines 50-51).

As to claim 5, Gipson et al teach an optical interface (30,30) has a terminal window transparent to the wavelength used, (see fig.4, column 6, lines 49-51).

As to claim 6, Gipson et al teach that the optical anomaly (32) has a totally reflecting recess of the optical connection path or one or more partly transmitting reflection element, (see fig.1, column 5, lines 56-61).

As to claim 7, Gipson et al teach that a single light transmitter (46) for the coupling of light into the optical connection path (50) and a single light receiver (44) for the reception of light from the optical connection path (50), see fig. 15, column 10, lines 5-15).

As to claim 8, Gipson et al teach optical interfaces (30,30), optical anomaly (32), light transmitter (46) and light receiver (44) are arranged such that both optical interfaces are optically connected and each of the optical interfaces are optically connected to the light transmitter and to the light receiver, (see fig. 1, column 5, lines 56-68).

As to claim 9, Gipson et al teach the light transmitter and light receiver formed by a transceiver element (76), (see fig.12, column 9, lines 10-12).

As to claim 10, Gipson et al teach two optical connection paths (50), and two optical interfaces (30,30) are connected with the light transmitter (46), and an associated optical anomaly (32) arranged at the one optical connection path (50). Gipson et al also teach a light receiver (44) connected with another associated optical anomaly (32) arranged at the optical connection path (50), (see fig. 15, column 10, lines 5-16).

As to claim 11, Gipson et al teach an optoelectronic sensor device, (see column 3, lines 67-68).

As to claim 12, Gipson et al teach a system having a plurality of detector units (94), (96), and (98), (see fig. 15, column 9 and column 10, lines 1-63).

As to claim 13, Gipson et al teach optical interfaces (30,30) are arranged adjacently and provided in a congruent arrangement, (see figure 4, column 6, lines 49-51).

As to claim 14, Gipson et al teach adapter unit (28), may be considered an optical adapter with an optical interface (30), and a light guide output (32) arranged congruently to provide optical connection between detector units on different lines, see fig. 15, column 10, lines 1-53).

As to claim 17, the inclusion of a control unit as claimed is an inherent feature of Gipson et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gipson et al in view of Bregman et al.

As to claim 15-16, Gipson et al fail to disclose the use of a terminal unit having a terminal reflector provided in a congruent arrangement. Bregman et al disclosed the use of a light absorbing terminating feature used with the detector unit. It would have been obvious for one ordinary skill in the art to modify the termination feature to have a reflective property if it was desirous to maintain the optical strength of the light beam. Further, it would have been obvious for one of ordinary skill in the art to modify Gipson et al to include a modified terminating feature as disclosed in Bregman et al as a means of maintaining the intensified optical strength of the signal or to prevent interference from outside influences.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don Williams whose telephone number is 571-272-8538. The examiner can normally be reached on 8:30a.m. to 5:30a.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Don Williams
Patent Examiner
Art Unit 2878



DAVID PORTA
SUPERVISORY PATENT EXAMINER
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